

4. (currently amended) The apparatus of claim 1 ~~6~~, wherein the contact angle is defined by a first imaginary line extending through the first contact point and a central axis of the first following surface, and an imaginary reference line.

5. (cancelled)

6. (currently amended) ~~The apparatus of claim 5~~

An apparatus, comprising:

a cam having at least a first guiding surface;

a cam following assembly including a first following surface for engaging the first guiding surface of the cam at least at a first contact point, and a means for urging the first following surface against the first guiding surface of the cam;

the first following surface defining a contact angle with the first guiding surface of the cam; and

the first guiding surface of the cam being shaped such that the contact angle of the first follower changes substantially continually as the cam following assembly moves along a longitudinal axis of the cam;

wherein the means for urging the first following surface against the first guiding surface of the cam wherein the spring comprises a leaf spring.

7. (cancelled)

8. (currently amended) ~~The apparatus of claim 5~~

An apparatus, comprising:

a cam having at least a first guiding surface;

a cam following assembly including a first following surface for engaging the first guiding surface of the cam at least at a first contact point, and a means for urging the first following surface against the first guiding surface of the cam;

the first following surface defining a contact angle with the first guiding surface of the cam; and

the first guiding surface of the cam being shaped such that the contact angle of the first follower changes substantially continually as the cam following assembly moves along a longitudinal axis of the cam;

wherein the means for urging the first following surface against the first guiding surface of the cam ~~wherein the spring~~ comprises a gas spring.

9. (cancelled)

10. (currently amended) The apparatus of claim 5 6, wherein a deflection of the leaf spring varies in a manner substantially inversely proportionally to an associated variation in a trigonometric TAN function of the contact angle throughout a travel of the cam following assembly.

11. (currently amended) The apparatus of claim 5 6, wherein the cam is shaped such that movement of the cam following assembly along the longitudinal axis of the cam causes a deflection of the leaf spring and a change in the contact angle of the first following surface such that ~~the~~ a magnitude of an axial force component of a reactionary force acting on the first following surface is substantially constant throughout a travel of the cam following assembly.

12 -17. (cancelled)

18. (currently amended) The apparatus of claim ~~12~~ 6, wherein the leaf spring has a spring constant reflecting a substantially linear relationship between deflection and spring force.

19. (currently amended) The apparatus of claim ~~12~~ 6, wherein the leaf spring has a spring function reflecting a substantially nonlinear relationship between deflection and spring force.

20. (currently amended) The apparatus of claim ~~12~~ 6, wherein the cam is substantially symmetrical about the longitudinal axis thereof.

21-25 (cancelled)

26. (new) The apparatus of claim 8, wherein the first guiding surface of the cam has a substantially continually changing slope.

27. (new) The apparatus of claim 8, wherein the first guiding surface of the cam has a substantially continually changing radius of curvature.

28. (new) The apparatus of claim 8, wherein the contact angle is defined by a first imaginary line extending through the first contact point and a central axis of the first following surface, and an imaginary reference line.

29. (new) The apparatus of claim 8, wherein a deflection of the gas spring varies in a manner substantially inversely proportionally to an associated variation in a trigonometric TAN function of the contact angle throughout a travel of the cam following assembly.

30. (new) The apparatus of claim 8, wherein the cam is shaped such that movement of the cam following assembly along the longitudinal axis of the cam causes a deflection of the gas spring and a change in the contact angle of the first following surface such that a magnitude

of an axial force component of a reactionary force acting on the first following surface is substantially constant throughout a travel of the cam following assembly.

31. (new) The apparatus of claim 8, wherein the gas spring has a spring constant reflecting a substantially linear relationship between deflection and spring force.

32. (new) The apparatus of claim 8, wherein the gas spring has a spring function reflecting a substantially nonlinear relationship between deflection and spring force.

33. (new) The apparatus of claim 8, wherein the cam is substantially symmetrical about the longitudinal axis thereof.